Data Sheet (Cat.No.TN2079)

TargetMol
A DRUG SCREENING EXPERT

(-)-Pinoresinol

Chemical Properties

CAS No.:	81446-29-9
Formula:	C20H22O6
Molecular Weight:	358.4
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Pinoresinol is the precursor of other dietary lignans that are present in whole-grain cereals, legumes, fruits, and other vegetables, PIN can cause an upregulation of the CDK inhibitor p21(WAF1/Cip1) both at mRNA and protein levels; PIN can ameliorate CCl4-induced acute liver injury, and this protection is likely due to anti-oxidative activity and down-regulation of inflammatory mediators through inhibition of NF-kappaB and AP-1.
Targets(IC_{50})	TNF-α: None COX: None NF-κB: None
In vitro	In this study, we investigated the antifungal activity and mechanism of action of (+)-pinoresinol, a biphenolic compound isolated from the herb Sambucus williamsii,used in traditional medicine. (+)-Pinoresinol displays potent antifungal properties without hemolytic effects on human erythrocytes. To understand the antifungal mechanism of (+)-pinoresinol, we conducted fluorescence experiments on the human pathogen Candida albicans. Fluorescence analysis using 1,6-diphenyl-1,3,5-hexatriene (DPH) indicated that the (+)-pinoresinol caused damage to the fungal plasma membrane. This result was confirmed by using rhodamine-labeled giant unilamellar vesicle (GUV) experiments.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.79 mL	13.951 mL	27.902 mL
5 mM	0.558 mL	2.79 mL	5.58 mL
10 mM	0.279 mL	1.395 mL	2.79 mL
50 mM	0.056 mL	0.279 mL	0.558 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Antifungal effect of (+)-pinoresinol isolated from Sambucus williamsii.Molecules, 2010, 15(5):3507-16.

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